SUZUKI

GSX1300BK

B-KING

SERVICE MANUAL

99500-39320-01E

FOREWORD

This manual contains an introductory description on the SUZUKI GSX1300BK and procedures for its inspection/service and overhaul of its main components.

Other information considered as generally known is not included.

Read the GENERAL INFORMATION section to familiarize yourself with the motorcycle and its maintenance. Use this section as well as other sections to use as a guide for proper inspection and service.

This manual will help you know the motorcycle better so that you can assure your customers of fast and reliable service.

** This manual has been prepared on the basis of the latest specifications at the time of publication. If modifications have been made since then, differences may exist between the content of this manual and the actual motorcycle.*

** Illustrations in this manual are used to show the basic principles of operation and work procedures. They may not represent the actual motorcycle exactly in detail.*

** This manual is written for persons who have enough knowledge, skills and tools, including special tools, for servicing SUZUKI motorcycles. If you do not have the proper knowledge and tools, ask your authorized SUZUKI motorcycle dealer to help you.*

⚠ WARNING

Inexperienced mechanics or mechanics without the proper tools and equipment may not be able to properly perform the services described in this manual.
Improper repair may result in injury to the mechanic and may render the motorcycle unsafe for the rider and passenger.

SUZUKI MOTOR CORPORATION

TABLE OF CONTENTS

SUZUKI

GSX1300BK

B-KING

SERVICE MANUAL

99500-39320-01E

FOREWORD

This manual contains an introductory description on the SUZUKI GSX1300BK and procedures for its inspection/ service and overhaul of its main components.
Other information considered as generally known is not included.
Read the GENERAL INFORMATION section to familiarize yourself with the motorcycle and its maintenance. Use this section as well as other sections to use as a guide for proper inspection and service.
This manual will help you know the motorcycle better so that you can assure your customers of fast and reliable service.

** This manual has been prepared on the basis of the latest specifications at the time of publication. If modifications have been made since then, differences may exist between the content of this manual and the actual motorcycle.*
** Illustrations in this manual are used to show the basic principles of operation and work procedures. They may not represent the actual motorcycle exactly in detail.*
** This manual is written for persons who have enough knowledge, skills and tools, including special tools, for servicing SUZUKI motorcycles. If you do not have the proper knowledge and tools, ask your authorized SUZUKI motorcycle dealer to help you.*

⚠ WARNING

Inexperienced mechanics or mechanics without the proper tools and equipment may not be able to properly perform the services described in this manual.
Improper repair may result in injury to the mechanic and may render the motorcycle unsafe for the rider and passenger.

SUZUKI MOTOR CORPORATION

TABLE OF CONTENTS

Section 00

Precautions

CONTENTS

Precautions

Precautions

Warning / Caution / Note

B823H10000001

Please read this manual and follow its instructions carefully. To emphasize special information, the symbol and the words WARNING, CAUTION and NOTE have special meanings. Pay special attention to the messages highlighted by these signal words.

⚠ WARNING

Indicates a potential hazard that could result in death or injury.

⚠ CAUTION

Indicates a potential hazard that could result in motorcycle damage.

NOTE

Indicates special information to make maintenance easier or instructions clearer.

Please note, however, that the warnings and cautions contained in this manual cannot possibly cover all potential hazards relating to the servicing, or lack of servicing, of the motorcycle. In addition to the WARNINGS and CAUTIONS stated, you must use good judgement and basic mechanical safety principles. If you are unsure about how to perform a particular service operation, ask a more experienced mechanic for advice.

General Precautions

B823H10000002

⚠ WARNING

- **Proper service and repair procedures are important for the safety of the service mechanic and the safety and reliability of the motorcycle.**
- **When 2 or more persons work together, pay attention to the safety of each other.**
- **When it is necessary to run the engine indoors, make sure that exhaust gas is forced outdoors.**
- **When working with toxic or flammable materials, make sure that the area you work in is well ventilated and that you follow all of the material manufacturer's instructions.**
- **Never use gasoline as a cleaning solvent.**
- **To avoid getting burned, do not touch the engine, engine oil, radiator and exhaust system until they have cooled.**
- **After servicing the fuel, oil, water, exhaust or brake systems, check all lines and fittings related to the system for leaks.**

⚠ CAUTION

- **If parts replacement is necessary, replace the parts with Suzuki Genuine Parts or their equivalent.**
- **When removing parts that are to be reused, keep them arranged in an orderly manner so that they may be reinstalled in the proper order and orientation.**
- **Be sure to use special tools when instructed.**
- **Make sure that all parts used in reassembly are clean. Lubricate them when specified.**
- **Use the specified lubricant, bond or sealant.**
- **When removing the battery, disconnect the negative (–) cable first and then the positive (+) cable.**
- **When reconnecting the battery, connect the positive (+) cable first and then the negative (–) cable, and replace the terminal cover on the positive (+) terminal.**
- **When performing service to electrical parts, if the service procedures do not require use of battery power, disconnect the negative (–) cable the battery.**
- **When tightening the cylinder head or case bolts and nuts, tighten the larger sizes first. Always tighten the bolts and nuts diagonally from the inside toward outside and to the specified tightening torque.**
- **Whenever you remove oil seals, gaskets, packing, O-rings, locking washers, self-locking nuts, cotter pins, circlips and certain other parts as specified, be sure to replace them with new ones. Also, before installing these new parts, be sure to remove any left over material from the mating surfaces.**

- **Never reuse a circlip. When installing a new circlip, take care not to expand the end gap larger than required to slip the circlip over the shaft. After installing a circlip, always ensure that it is completely seated in its groove and securely fitted.**
- **Use a torque wrench to tighten fasteners to the specified torque. Wipe off grease and oil if a thread is smeared with them.**
- **After reassembling, check parts for tightness and proper operation.**
- **To protect the environment, do not unlawfully dispose of used motor oil, engine coolant and other fluids: batteries, and tires.**
- **To protect Earth's natural resources, properly dispose of used motorcycle and parts.**

Precautions for Electrical Circuit Service

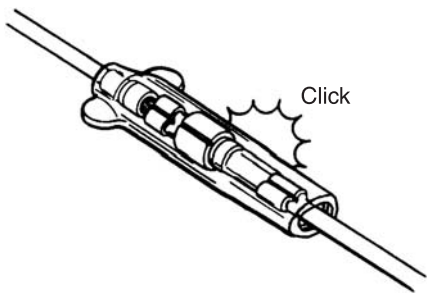
B823H10000003

When handling the electrical parts or servicing the FI and ABS systems, observe the following points for the safety of the systems.

Electrical Parts

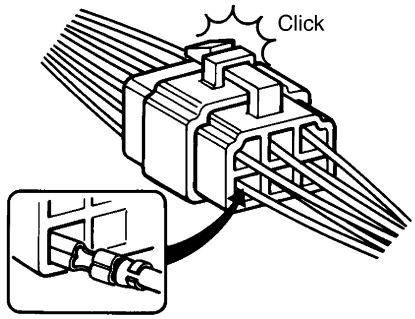
Connector / Coupler

- When connecting a connector, be sure to push it in until a click is felt.



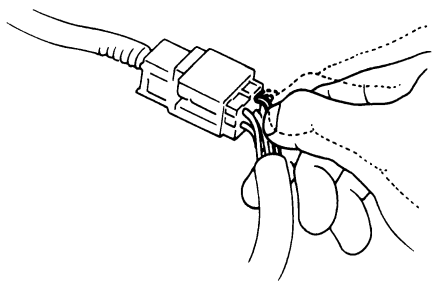
I823H1000002-01

- With a lock type coupler, be sure to release the lock when disconnecting, and push it in fully to engage the lock when connecting.
- When disconnecting the coupler, be sure to hold the coupler body and do not pull the lead wires.
- Inspect each terminal on the connector/coupler for looseness or bending.
- Push in the coupler straightly. An angled or skewed insertion may cause the terminal to be deformed, possibly resulting in poor electrical contact.
- Inspect each terminal for corrosion and contamination. The terminals must be clean and free of any foreign material which could impede proper terminal contact.
- Before refitting the sealed coupler, make sure its seal rubber is positioned properly. The seal rubber may possibly come off the position during disconnecting work and if the coupler is refitted with the seal rubber improperly positioned, it may result in poor water sealing.



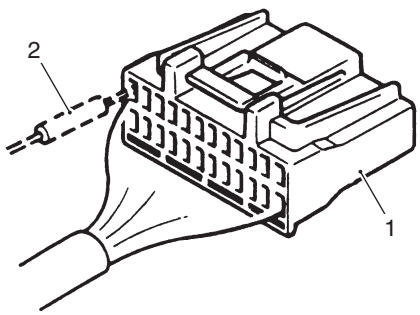
I310G1000002-01

- Inspect each lead wire circuit for poor connection by shaking it by hand lightly. If any abnormal condition is found, repair or replace.



I310G1000003-02

- When taking measurements at electrical connectors using a tester probe, be sure to insert the probe from the wire harness side (rear) of the connector/coupler.

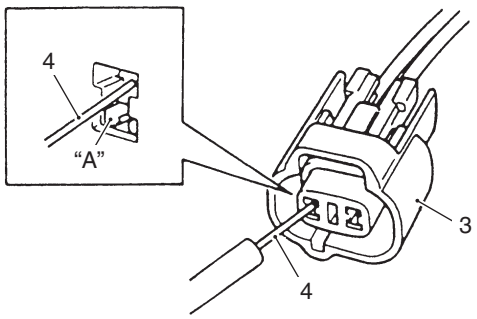


I649G1000013-02

1. Coupler	2. Probe

- When connecting meter probe from the terminal side of the coupler (where connection from harness side not being possible), use extra care not to force and cause the male terminal to bend or the female terminal to open. Connect the probe as shown to avoid opening of female terminal. Never push in the probe where male terminal is supposed to fit.

- Check the male connector for bend and female connector for excessive opening. Also check the coupler for locking (looseness), corrosion, dust, etc.

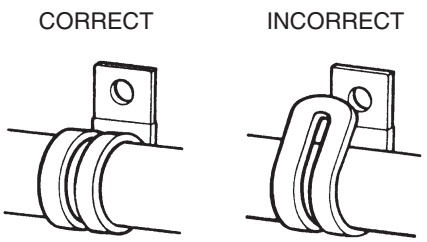


I649G1000030-02

3. Coupler	4. Probe	"A": Where male terminal fits

Clamp

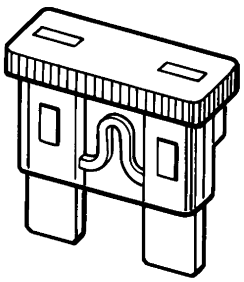
- Clamp the wire harness at such positions as indicated in "Wiring Harness Routing Diagram in Section 9A (Page 9A-5)".
- Bend the clamp properly so that the wire harness is clamped securely.
- In clamping the wire harness, use care not to allow it to hang down.
- Do not use wire or any other substitute for the band type clamp.



I718H1000001-02

Fuse

- When a fuse is blown, always investigate the cause to correct it and then replace the fuse.
- Do not use a fuse of different capacity.
- Do not use wire or any other substitute for the fuse.



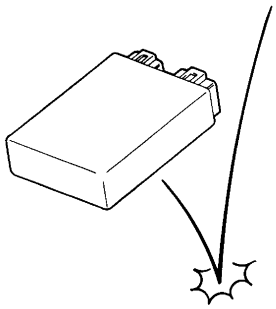
I649G1000001-02

Switch

Never apply grease material to switch contact points to prevent damage.

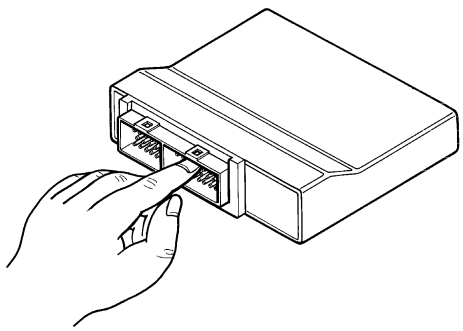
ECM / Various sensors

- Since each component is a high-precision part, great care should be taken not to apply any severe impacts during removal and installation.



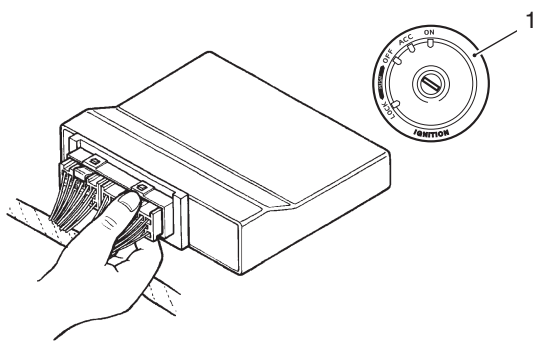
I310G1000007-01

- Be careful not to touch the electrical terminals of the electronic parts (ECM, etc.). The static electricity from your body may damage them.



I310G1000008-01

- When disconnecting and connecting the coupler, make sure to turn OFF the ignition switch, or electronic parts may get damaged.

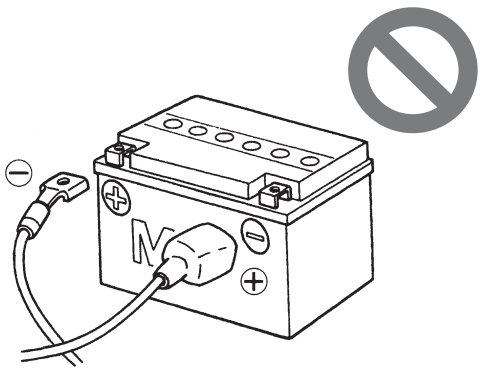


I823H1000001-02

1. Ignition switch

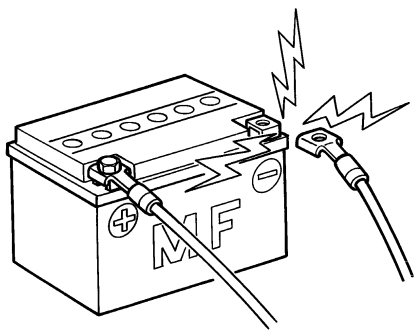
Battery

- Battery connection in reverse polarity is strictly prohibited. Such a wrong connection will damage the components of the FI and ABS systems instantly when reverse power is applied.



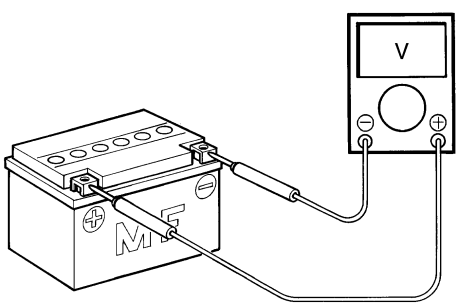
I718H1000004-01

- Removing any battery terminal of a running engine is strictly prohibited. The moment such removal is made, damaging counter electromotive force will be applied to the electronic unit which may result in serious damage.



I310G1000011-01

- Before measuring voltage at each terminal, check to make sure that battery voltage is 11 V or higher. Terminal voltage check with a low battery voltage will lead to erroneous diagnosis.



I310G1000012-02

- Never connect any tester (voltmeter, ohmmeter, or whatever) to the electronic unit when its coupler is disconnected. Otherwise, damage to electronic unit may result.
- Never connect an ohmmeter to the electronic unit with its coupler connected. If attempted, damage to ECM or sensors may result.
- Be sure to use a specified voltmeter/ohmmeter. Otherwise, accurate measurements may not be obtained and personal injury may result.

Electrical Circuit Inspection Procedure

While there are various methods for electrical circuit inspection, described here is a general method to check for open and short circuit using an ohmmeter and a voltmeter.

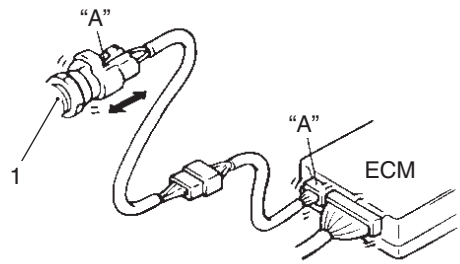
Open circuit check

Possible causes for the open circuit are as follows. As the cause can exist in the connector/coupler or terminal, they need to be checked carefully.

- Loose connection of connector/coupler
- Poor contact of terminal (due to dirt, corrosion or rust, poor contact tension, entry of foreign object etc.)
- Wire harness being open.
- Poor terminal-to-wire connection.

When checking system circuits including an electronic control unit such as ECM, ABS control unit/HU, etc., it is important to perform careful check, starting with items which are easier to check.

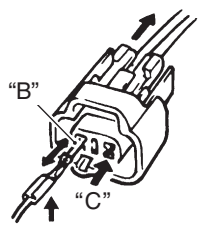
1) Disconnect the negative (–) cable from the battery.
2) Check each connector/coupler at both ends of the circuit being checked for loose connection. Also check for condition of the coupler lock if equipped.



I718H1000005-02

1. Sensor	"A": Check for loose connection

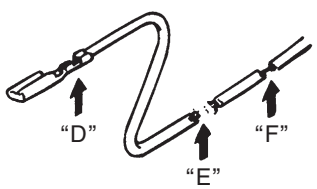
3) Using a test male terminal, check the female terminals of the circuit being checked for contact tension.
Check each terminal visually for poor contact (possibly caused by dirt, corrosion, rust, entry of foreign object, etc.). At the same time, check to make sure that each terminal is fully inserted in the coupler and locked.
If contact tension is not enough, rectify the contact to increase tension or replace. The terminals must be clean and free of any foreign material which could impede proper terminal contact.



I649G1000027-02

"B":	Check contact tension by inserting and removing.
"C":	Check each terminal for bend and proper alignment.

4) Using continuity inspect or voltage check procedure as described below, inspect the wire harness terminals for open circuit and poor connection. Locate abnormality, if any.

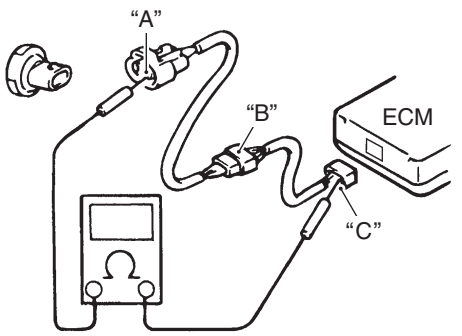


I649G1000028-02

"D":	Looseness of crimping
"E":	Open
"F":	Thin wire (A few strands left)

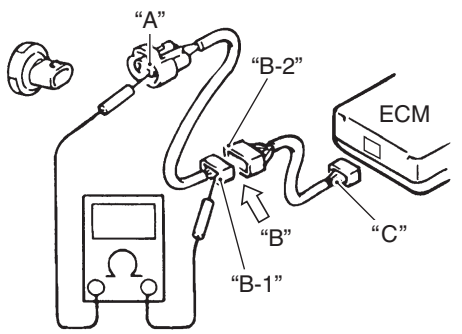
Continuity check

1) Measure resistance across coupler "B" (between "A" and "C" in figure).
If no continuity is indicated (infinity or over limit), the circuit is open between terminals "A" and "C".



I705H1000006-02

2) Disconnect the coupler "B" and measure resistance between couplers "A" and "B-1".
If no continuity is indicated, the circuit is open between couplers "A" and "B-1". If continuity is indicated, there is an open circuit between couplers "B-2" and "C" or an abnormality in coupler "B-2" or coupler "C".



I705H1000010-02

Voltage check

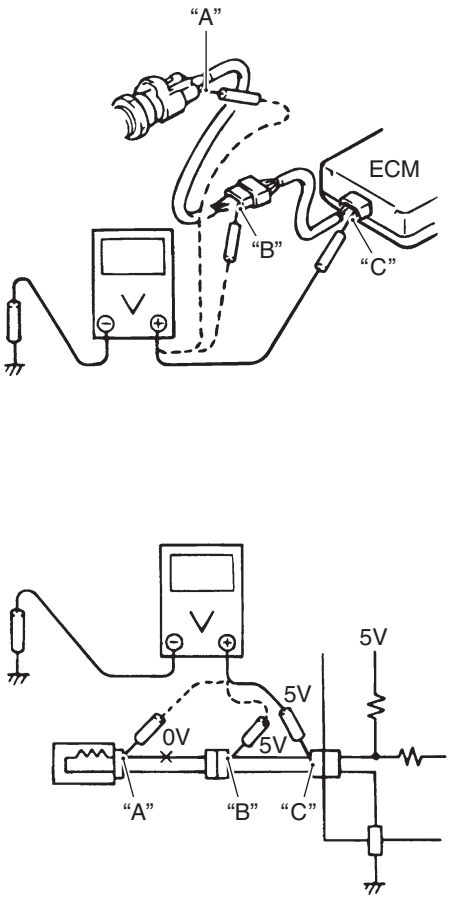
If voltage is supplied to the circuit being checked, voltage check can be used as circuit check.

1) With all connectors/couplers connected and voltage applied to the circuit being checked, measure voltage between each terminal and body ground.
2) If measurements were taken as shown in the figure and results were listed in the following, it means that the circuit is open between terminals "A" and "B".

Voltage between
"A" and body ground: Approx. 5 V
"B" and body ground: Approx. 5 V
"C" and body ground: 0 V

3) Also, if measured values are as listed following, a resistance (abnormality) exists which causes the voltage drop in the circuit between terminals “A” and “B”.

Voltage between
“A” and body ground: Approx. 5 V
“B” and body ground: Approx. 5 V – 2 V voltage drop
“C” and body ground: 3 V – 2 V voltage drop



I705H1000007-01

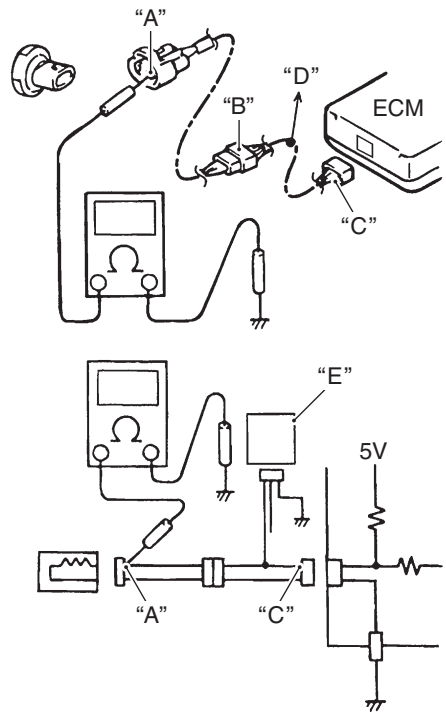
Short circuit check (Wire harness to ground)

1) Disconnect the negative (–) cable from the battery.
2) Disconnect the connectors/couplers at both ends of the circuit to be checked.

NOTE

If the circuit to be checked branches to other parts as shown, disconnect all connectors/couplers of those parts. Otherwise, diagnosis will be wrong.

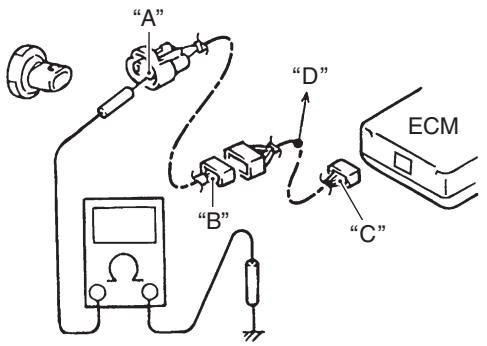
3) Measure resistance between terminal at one end of circuit (“A” terminal in figure) and body ground. If continuity is indicated, there is a short circuit to ground between terminals “A” and “C”.



I705H1000008-01

“D”: To other parts	“E”: Other parts

4) Disconnect the connector/coupler included in circuit (coupler “B”) and measure resistance between terminal “A” and body ground. If continuity is indicated, the circuit is shorted to the ground between terminals “A” and “B”.



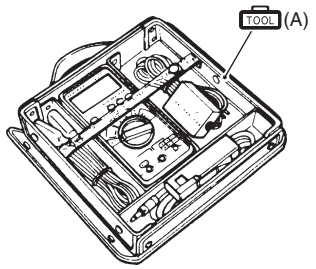
I705H1000009-02

“D”: To other parts

Using The Multi-Circuit Testers

- Use the Suzuki multi-circuit tester set.
- Use well-charged batteries in the tester.
- Be sure to set the tester to the correct testing range.

Special tool
TOOL (A): 09900–25008 (Multi-circuit tester set)

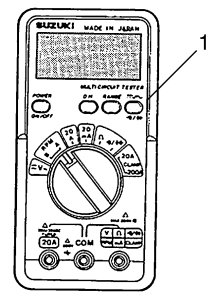


I649G1000024-03

Using the testers

- Incorrectly connecting the (+) and (–) probes may cause the inside of the tester to be burned.
- If the voltage and current are not known, make measurements using the highest range.
- When measuring the resistance with the multi-circuit tester (1), ∞ will be shown as 10.00 MΩ and “1” flashes in the display.
- Check that no voltage is applied before making the measurement. If voltage is applied the tester may be damaged.
- After using the tester, turn the power off.

Special tool
TOOL : 09900–25008 (Multi-circuit tester set)



I649G1000002-02

NOTE

- **When connecting the multi-circuit tester, use the needle pointed probe to the back side of the lead wire coupler and connect the probes of tester to them.**
- **Use the needle pointed probe to prevent the rubber of the water proof coupler from damage.**
- **When using the multi-circuit tester, do not strongly touch the terminal of the ECM coupler with a needle pointed tester probe to prevent the terminal damage or terminal bend.**

Special tool
TOOL (A): 09900–25009 (Needle pointed probe set)

I649G1000025-03

Section 0

General Information

CONTENTS

General Information

General Description

Symbols

B823H10101001

Listed in the table below are the symbols indicating instructions and other information necessary for servicing. The meaning of each symbol is also included in the table.

Symbol	Definition
	Torque control required. Data beside it indicate specified torque.
	Apply oil. Use engine oil unless otherwise specified.
	Apply molybdenum oil solution. (Mixture of engine oil and SUZUKI MOLY PASTE in a ratio of 1:1).
	Apply SUZUKI SUPER GREASE “A” or equivalent. 99000-25010
	Apply SUZUKI MOLY PASTE or equivalent. 99000-25140
	Apply SUZUKI SILICONE GREASE or equivalent. 99000-25100
1207B	Apply SUZUKI BOND “1207B” or equivalent. 99000-31140
1303	Apply THREAD LOCK SUPER “1303” or equivalent. 99000-32030
1322	Apply THREAD LOCK SUPER “1322” or equivalent. 99000-32110
1360	Apply THREAD LOCK SUPER “1360” or equivalent. 99000-32130
LLC	Use engine coolant or equivalent. 99000-99032-11X
FORK	Use fork oil or equivalent. 99000-99044-L01
SEAL	Apply MUFFLER SEAL LOCTITE “5920” (commercially available) or equivalent.
BF	Apply or use brake fluid.
TOOL	Use special tool.
	Do not reuse.
	Note on reassembly.

Abbreviations

B823H10101002

A:
ABDC: After Bottom Dead Center
AC: Alternating Current
ACL: Air Cleaner, Air Cleaner Box
API: American Petroleum Institute
ATDC: After Top Dead Center
ATM Pressure: Atmospheric Pressure, Atmospheric Pressure Sensor (APS, AP Sensor)
A/F: Air Fuel Mixture
B:
BBDC: Before Bottom Dead Center
BTDC: Before Top Dead Center
B+: Battery Positive Voltage
BARO: Barometric pressure (Atmospheric pressure)
C:
CKP Sensor: Crankshaft Position Sensor (CKPS)
CKT: Circuit
CLP Switch: Clutch Lever Position Switch (Clutch Switch)
CMP Sensor: Camshaft Position Sensor (CMPS)
CO: Carbon Monoxide
CPU: Central Processing Unit
D:
DC: Direct Current
DMC: Dealer Mode Coupler
DOHC: Double Over Head Camshaft
DRL: Daytime Running Light
DTC: Diagnostic Trouble code
E:
ECM: Engine Control Module Engine Control Unit (ECU) (FI Control Unit)
ECT Sensor: Engine Coolant Temperature Sensor (ECTS)
Water Temp. Sensor (WTS)
EVAP: Evaporative Emission
EXC System: Exhaust Control System (EXCS)

EXC Valve: Exhaust Control Valve (EXCV)
EXCV Actuator: Exhaust Control Valve Actuator (EXCVA)
F:
FI: Fuel Injection, Fuel Injector
FP: Fuel pump
FPR: Fuel Pressure Regulator
FP Relay: Fuel Pump Relay
G:
GEN: Generator
GND: Ground
GP Switch: Gear Position Switch
H:
HC: Hydrocarbons
HO2 sensor: Heated Oxygen Sensor (HO2S)
I:
IAP Sensor: Intake Air Pressure Sensor (IAPS)
IAT Sensor: Intake Air Temperature Sensor (IATS)
IG: Ignition
ISC Valve: Idle Speed Control Valve (ISCV)
J:
JASO: Japanese Automobile Standards Organization
L:
LCD: Liquid Crystal Display
LED: Light Emitting Diode (Malfunction Indicator Lamp)
LH: Left Hand
M:
MAL-CODE: Malfunction Code (Diagnostic Code)
Max: Maximum
MIL: Malfunction Indicator Lamp (LED)
Min: Minimum
N:
NOx: Nitrogen Oxides
O:
OHC: Over Head Camshaft
OPS: Oil Pressure Switch
P:
PAIR: Pulsed Secondary Air Injection
PCM: Power Control Module
PCV: Positive Crankcase Ventilation (Crankcase Breather)
R:
RH: Right Hand
ROM: Read Only Memory
S:
SAE: Society of Automotive Engineers
SDS: Suzuki Diagnosis System
STC System: Secondary Throttle Control System (STCS)
STP Sensor: Secondary Throttle Position Sensor (STPS)
ST Valve: Secondary Throttle Valve (STV)
STV Actuator: Secondary Throttle Valve Actuator (STVA)
T:
TO Sensor: Tip-over Sensor (TOS)
TP Sensor: Throttle Position Sensor (TPS)
TPC Valve: Tank Pressure Control Valve (TPCV)

Vehicle Side View

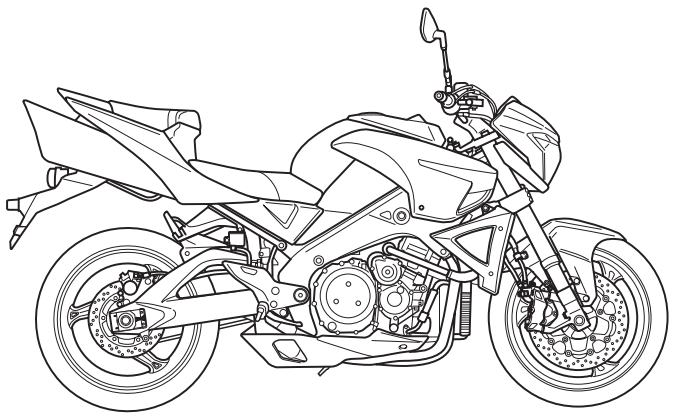
B823H10101004

NOTE

Difference between illustrations and actual motorcycles may exist depending on the markets.

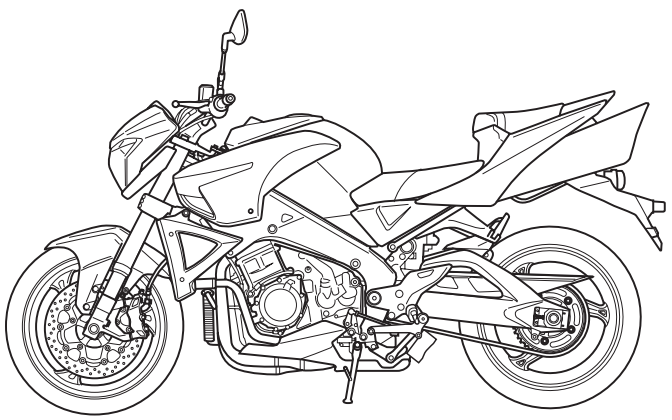
SUZUKI GSX1300BK (2008-model)

Right Side



I823H1010006-04

Left Side

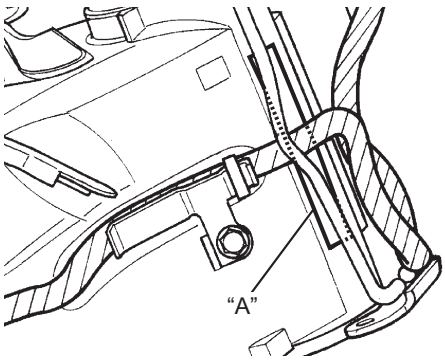


I823H1010007-05

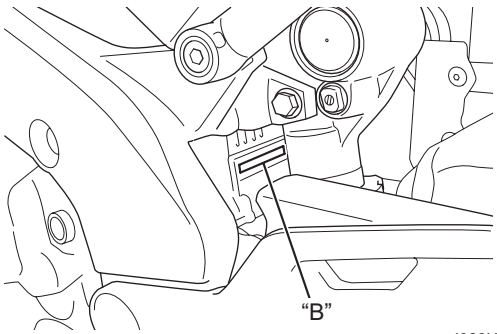
Vehicle Identification Number

B823H10101005

The frame serial number or V.I.N. (Vehicle Identification Number) “A” is stamped on the right side of the steering head pipe. The engine serial number “B” is located on the upper crankcase. These numbers are required especially for registering the machine and ordering spare parts.



I823H1010008-08



I823H1010009-03

Fuel and Oil Recommendation

B823H10101006

Fuel (For USA and Canada)

Use only unleaded gasoline of at least 90 pump octane (R/2 + M/2).

Gasoline containing MTBE (Meltyl Tertiary Butyl Ether), less than 10% ethanol, or less than 5% methanol with appropriate cosolvents and corrosion inhibitor is permissible.

Fuel (For Other Countries)

Gasoline used should be graded 95 octane (Research Method) or higher. Unleaded gasoline is recommended.

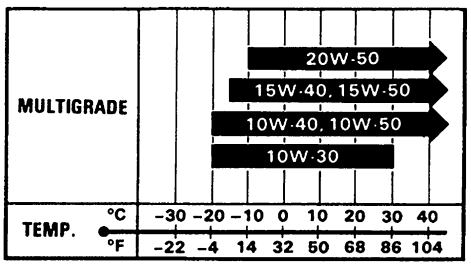
Engine Oil (For USA)

Oil quality is a major contributor to your engine’s performance and life. Always select good quality engine oil.

Suzuki recommends the use of SUZUKI PERFORMANCE 4 MOTOR OIL or equivalent engine oil. Use of SF/SG or SH/SJ in API with MA in JASO. Suzuki recommends the use of SAE 10W-40 engine oil. If SAE 10W-40 engine oil is not available, select and alternative according to the chart.

Engine Oil (For Other Countries)

Oil quality is a major contributor to your engine’s performance and life. Always select good quality engine oil. Use of SF/SG or SH/SJ in API with MA in JASO. Suzuki recommends the use of SAE 10W-40 engine oil. If SAE 10W-40 engine oil is not available, select an alternative according to the chart.



I310G1010005-01

Brake Fluid

Specification and classification: DOT 4

⚠ WARNING

Since the brake system of this motorcycle is filled with a glycol-based brake fluid by the manufacturer, do not use or mix different types of fluid such as silicone-based and petroleum-based fluid for refilling the system, otherwise serious damage will result.

Do not use any brake fluid taken from old or used or unsealed containers.

Never reuse brake fluid left over from a previous servicing, which has been stored for a long period.

Front Fork Oil

Use fork oil L01 or equivalent fork oil.

Engine Coolant Recommendation

B823H10101007

Engine Coolant
Use an anti-freeze/engine coolant compatible with an aluminum radiator, mixed with distilled water only.

Water for mixing
Use distilled water only. Water other than distilled water can corrode and clog the aluminum radiator.

Anti-freeze/Engine coolant
The engine coolant perform as a corrosion and rust inhibitor as well as anti-freeze. Therefore, the engine coolant should be used at all times even though the atmospheric temperature in your area does not go down to freezing point.
Suzuki recommends the use of SUZUKI COOLANT anti-freeze/engine coolant. If this is not available, use an equivalent which is compatible with an aluminum radiator.

Liquid amount of water/Engine coolant

Solution capacity (total)
2 900 ml (3.1/2.6 US/Imp qt)

For engine coolant mixture information, refer to “Engine Coolant Description in Section 1F (Page 1F-1)”.

⚠ CAUTION

Mixing of anti-freeze/engine coolant should be limited to 60%. Mixing beyond it would reduce its efficiency. If the anti-freeze/engine coolant mixing ratio is below 50%, rust inhabiting performance is greatly reduced. Be sure to mix it above 50% even though the atmospheric temperature does not go down to the freezing point.

BREAK-IN Procedures

B823H10101008

During manufacture only the best possible materials are used and all machined parts are finished to a very high standard but it is still necessary to allow the moving parts to “BREAK-IN” before subjecting the engine to maximum stresses. The future performance and reliability of the engine depends on the care and restraint exercised during its early life. The general rules are as follows.

1) Keep to these break-in engine speed limits:

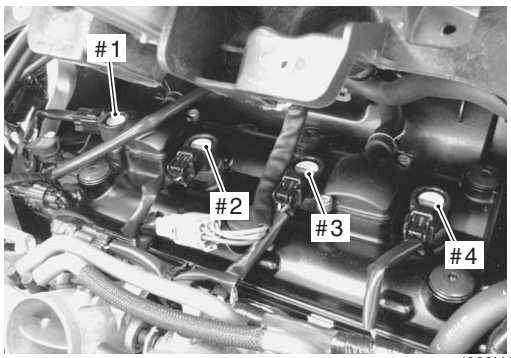
   Speed limits
   Initial 800 km (500 miles): Below 5 000 r/min
   Up to 1 600 km (1 000 miles): Below 7 500 r/min
   Over 1 600 km (1 000 miles): Below 10 500 r/min

2) Upon reaching an odometer reading of 1 600 km (1 000 miles) you can subject the motorcycle to full throttle operation. However, do not exceed 10 500 r/min at any time.

Cylinder Identification

B823H10101009

The four cylinders of this engine are identified as #1, 2, 3 and #4 cylinder, as counted from left to right (as viewed by the rider on the seat).



I823H1010005-02

Country and Area Codes

B823H10101010

The following codes stand for the applicable country(-ies) and area(-s).

Code	Country or Area	Effective Frame No.
GSX1300BK K8 (E-02)	U.K.	JS1CR111100100001 –
GSX1300BK K8 (E-19)	E.U.	JS1CR111100100001 –
GSX1300BKUF K8 (E-19)	E.U.	JS1CR211100100001 –
GSX1300BK K8 (E-03)	U.S.A (Except for California)	JS1GX71A 82100001 –
GSX1300BK K8 (E-24)	Australia	JS1CR111200100001 –
GSX1300BK K8 (E-28)	Canada	JS1GX71A 82100001 –
GSX1300BK K8 (E-33)	California (U.S.A)	JS1GX71A 82100001 –

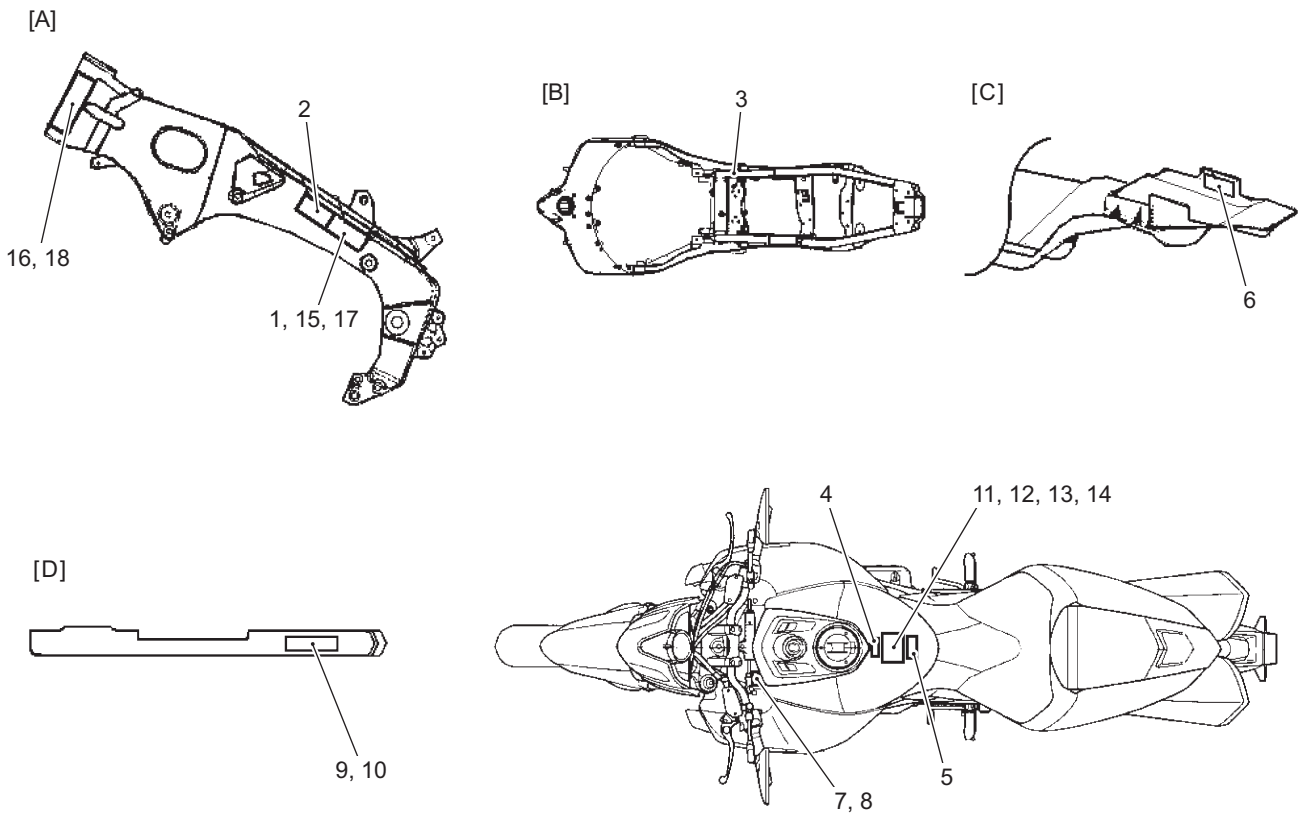
Wire Color Symbols

B823H10101011

Symbol	Wire Color	Symbol	Wire Color
B	Black	Bl/Y	Blue with Yellow tracer
Bl	Blue	Br/B	Brown with Black tracer
Br	Brown	G/B	Green with Black tracer
Dbr	Dark brown	G/Y	Green with Yellow tracer
Dg	Dark green	Gr/B	Gray with Black tracer
G	Green	Gr/R	Gray with Red tracer
Gr	Gray	Gr/W	Gray with White tracer
Lbl	Light blue	Gr/Y	Gray with Yellow tracer
Lg	Light green	O/G	Orange with Green tracer
O	Orange	O/R	Orange with Red tracer
P	Pink	O/W	Orange with White tracer
R	Red	O/Y	Orange with Yellow tracer
W	White	P/B	Pink with Black tracer
Y	Yellow	P/W	Pink with White tracer
B/Bl	Black with Blue tracer	R/B	Red with Black tracer
B/Br	Black with Brown tracer	R/Bl	Red with Blue tracer
B/G	Black with Green tracer	W/B	White with Black tracer
B/Lg	Black with Light green tracer	W/Bl	White with Blue tracer
B/O	Black with Orange tracer	W/G	White with Green tracer
B/R	Black with Red tracer	W/R	White with Red tracer
B/W	Black with White tracer	W/Y	White with Yellow tracer
B/Y	Black with Yellow tracer	Y/B	Yellow with Black tracer
Bl/B	Blue with Black tracer	Y/Bl	Yellow with Blue tracer
Bl/G	Blue with Green tracer	Y/R	Yellow with Red tracer
Bl/W	Blue with White tracer	Y/W	Yellow with White tracer

Warning, Caution and Information Labels Location

B823H10101012



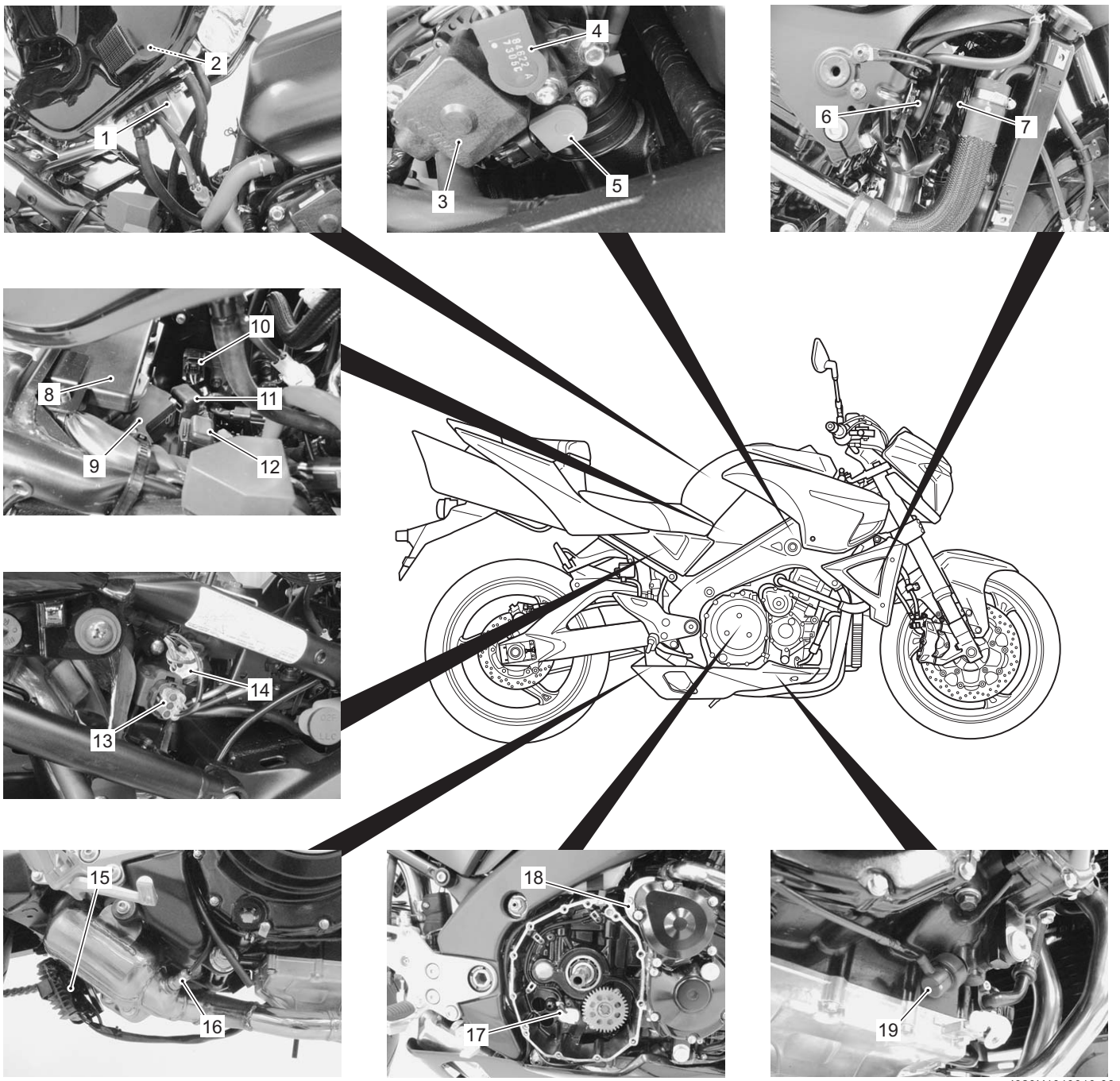
I823H1010013-01

1. Noise label (For E-03, 24, 33)	12. General warning label (French) (For GSX1300BKUF, E-19)
2. Information label (For E-03, 28, 33)	13. General warning label (English/French) (For E-28)
3. Vacuum hose routing label (For E-33)	14. General warning label (French/German/Italian/Swedish) (For E-19)
4. Fuel caution label (For E-02, 24)	15. ICES Canada label (For E-28)
5. Fuel information label	16. I.D. plate (For E-02, 19, 24)
6. Manual notice label (For E-03, 33)	17. I.D. label (For GSX1300BKUF, E-19)
7. Steering warning label (English) (For E-03, 33)	18. Safety plate (For E-03, 28, 33)
8. Steering warning label (French/German/English) (For E-02, 19, 24, 28)	[A]: Frame
9. Tire information label (English) (For E-03, 33)	[B]: Seat rail
10. Tire information label (French/German/English) (For E-02, 19, 24, 28)	[C]: Rear fender
11. General warning label (English) (For E-02, 03, 24, 33)	[D]: Chain cover

Component Location

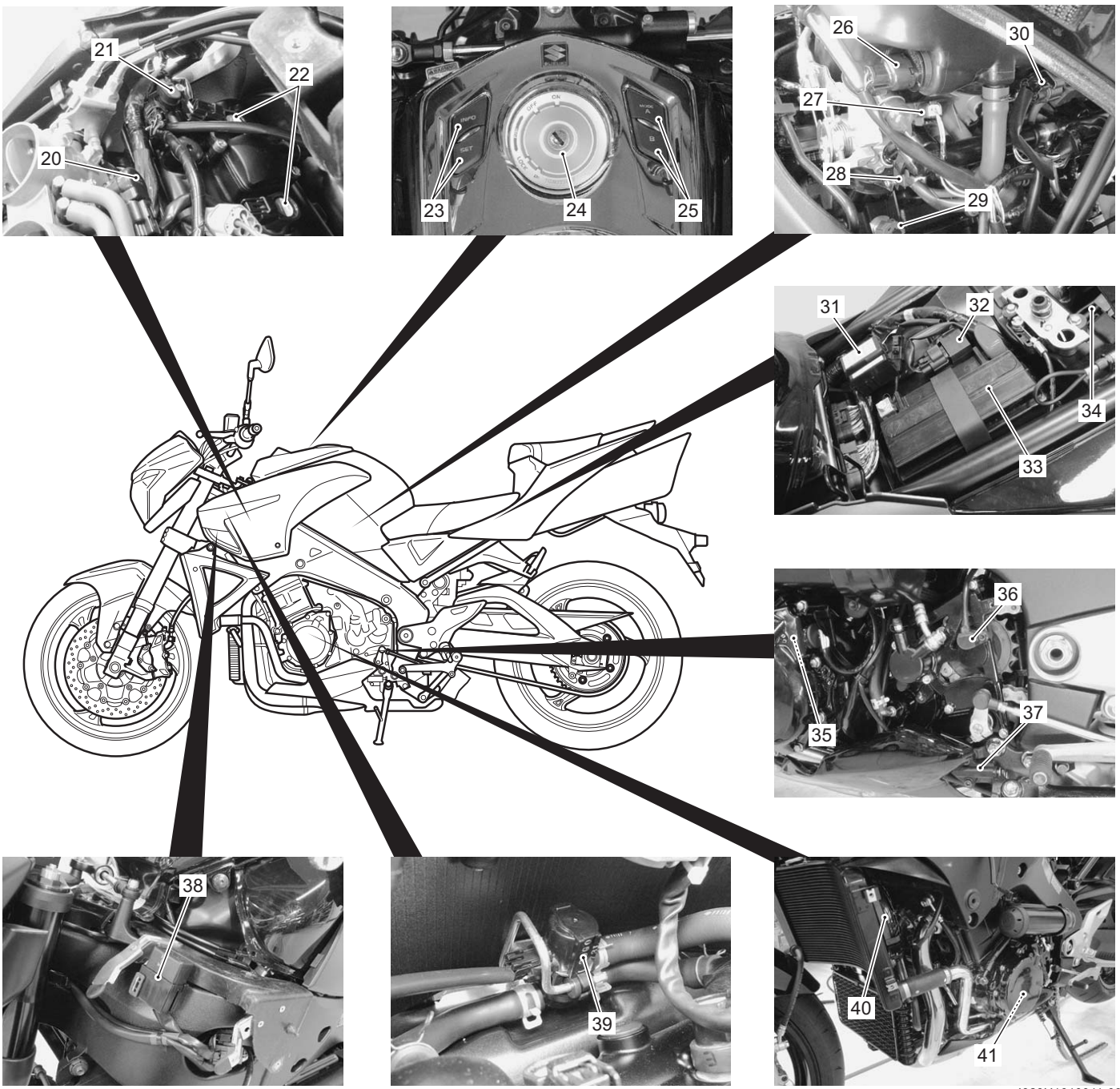
Electrical Components Location

B823H10103001



I823H1010010-06

1. Fuel pump	8. ECM	15. Regulator/Rectifier
2. Fuel level gauge	9. EXCV actuator	16. HO2 sensor
3. STV actuator	10. EVAP system purge control solenoid valve (E-33 only)	17. GP switch
4. STP sensor	11. Cooling fan relay	18. Starter motor
5. TP sensor	12. Fuel pump relay	19. Oil pressure switch
6. Horn	13. TO sensor	
7. Cooling fan (RH)	14. Mode select switch coupler	



I823H1010011-03

20. ISC valve	28. Primary fuel injector	36. Speed sensor
21. CMP sensor	29. ECT sensor	37. Side-stand switch
22. Ignition coil	30. IAP sensor	38. Turn signal/Side-stand relay
23. Information display switch	31. Fuse box	39. PAIR control solenoid valve
24. Ignition switch	32. AP sensor	40. Cooling fan (LH)
25. Drive mode selector	33. Battery	41. Generator
26. IAT sensor	34. Starter relay/Main fuse	
27. Secondary fuel injector	35. CKP sensor	

Specifications

Specifications

B823H10107001

NOTE

These specifications are subject to change without notice.

Dimensions and dry mass

Item	Specification	Remark
Overall length	2 245 mm (88.4 in)	E-03, 28, 33
	2 220 mm (87.4 in)	Others
Overall width	800 mm (31.5 in)	
Overall height	1 085 mm (42.7 in)	
Wheelbase	1 525 mm (60.0 in)	
Ground clearance	120 mm (4.7 in)	
Seat height	805 mm (31.7 in)	
Dry mass	236 kg (520 lbs)	E-33
	235 kg (518 lbs)	Others

Engine

Item	Specification	Remark
Type	4-stroke, Liquid-cooled, DOHC	
Number of cylinders	4	
Bore	81.0 mm (3.189 in)	
Stroke	65.0 mm (2.559 in)	
Displacement	1 340 cm^3 (81.8 cu. in)	
Compression ratio	12.5 : 1	
Fuel system	Fuel injection system	
Air cleaner	Paper element	
Starter system	Electric	
Lubrication system	Wet sump	
Idle speed	1 150 $\pm$ 100 r/min	

Drive train

Item		Specification	Remark
Clutch		Wet multi-plate type	
Transmission		6-speed constant mesh	
Gearshift pattern		1-down, 5-up	
Primary reduction ratio		1.596 (83/52)	
Gear ratios	Low	2.615 (34/13)	
	2nd	1.937 (31/16)	
	3rd	1.526 (29/19)	
	4th	1.285 (27/21)	
	5th	1.136 (25/22)	
	Top	1.043 (24/23)	
Final reduction ratio		2.388 (43/18)	
Drive chain		RK GB50GSV Z4, 118 links	

Chassis

Item	Specification	Remark
Front suspension	Inverted telescopic, coil spring, oil damped	
Rear suspension	Link type, coil spring, oil damped	
Front suspension stroke	120 mm (4.7 in)	
Rear wheel travel	137 mm (5.4 in)	
Caster	25° 30’	
Tail	107 mm (4.21 in)	
Steering angle	33° (right & left)	
Turning radius	3.0 m (9.8 ft)	
Front brake	Disc brake, twin	
Rear brake	Disc brake	
Front tire size	120/70ZR17M/C (58W), tubeless	
Rear tire size	200/50ZR17M/C (75W), tubeless	

Electrical

Item	Specification	Remark
Ignition type	Electronic ignition (Transistorized)	
Ignition timing	3° B.T.D.C. at 1 150 r/min	
Spark plug	NGK CR9EIA-9 or DENSO IU27D	
Battery	12 V 36 kC (10 Ah)/10 HR	
Generator	Three-phase A.C. generator	
Main fuse	30 A	
Fuse	15/15/10/10/10/10/10 A	
Headlight	12 V 60/55 W (H4)	
Position light	12 V 5 W x 2	
Brake light/Taillight	LED	
License plate light	12 V 5 W	
Turn signal light	12 V 21 W	
Speedometer light	LED	
Tachometer light	LED	
Turn signal indicator light	LED	
Neutral indicator light	LED	
High beam indicator light	LED	
Engine coolant temperature indicator light	LED	
Oil pressure indicator light	LED	
FI indicator light	LED	
Immobilizer indicator light	LED	E-02, 19, 24

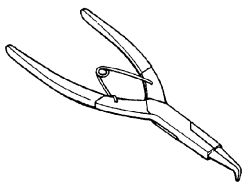
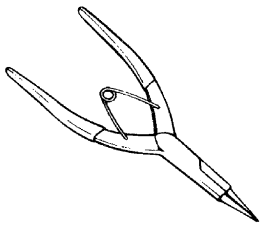
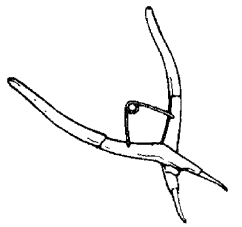
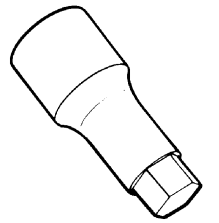
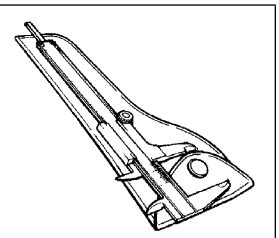
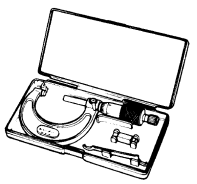
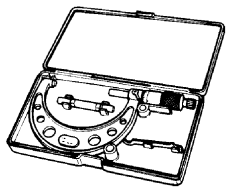
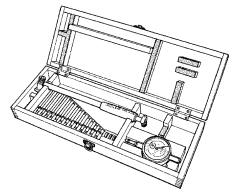
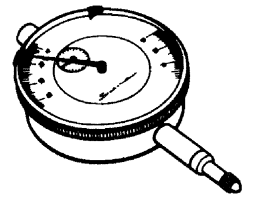
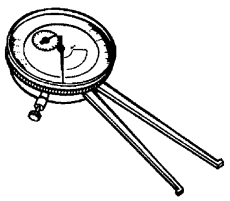
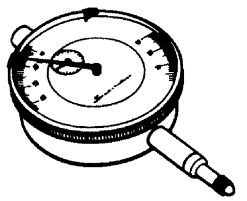
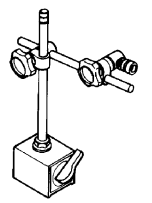
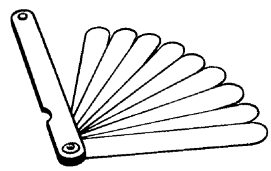
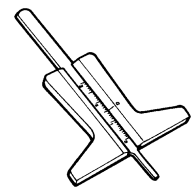
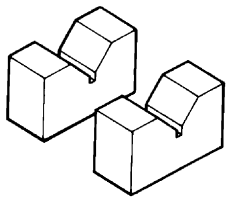
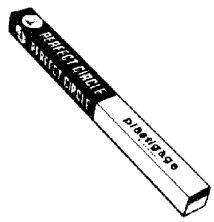
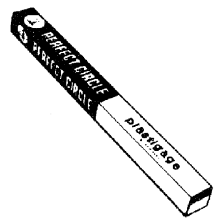
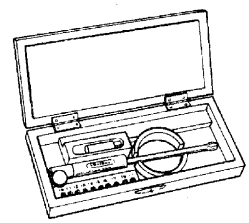
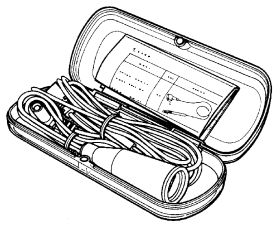
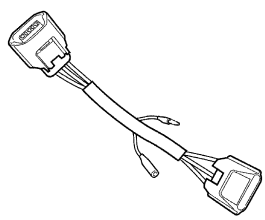
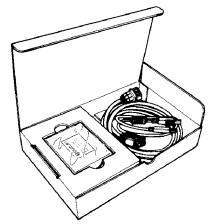
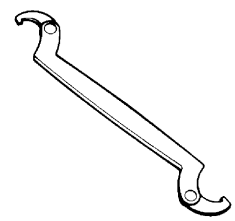
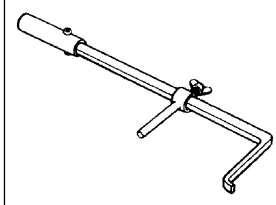
Capacities

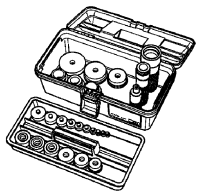
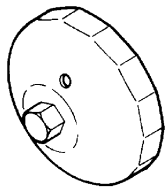
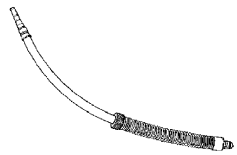
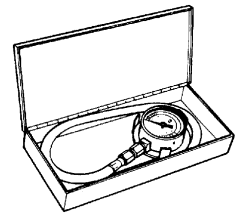
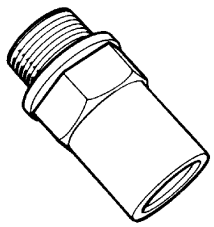
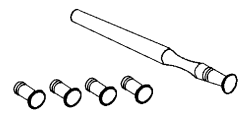
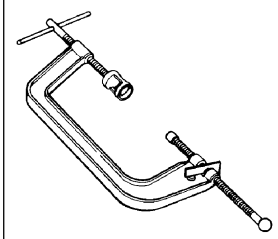
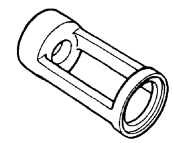
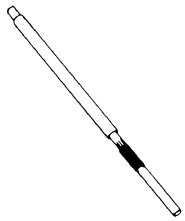
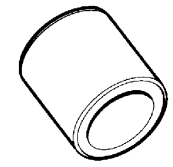
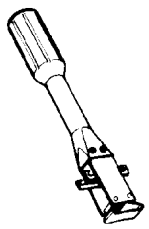
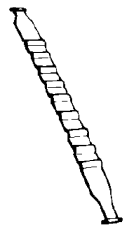
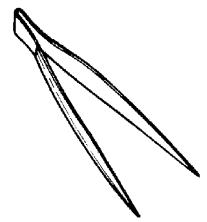
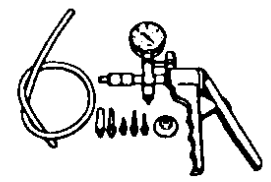
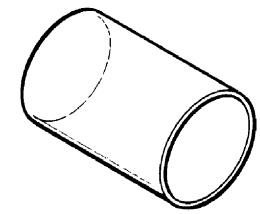
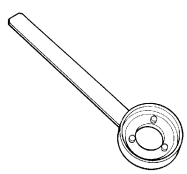
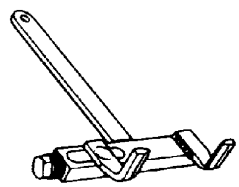
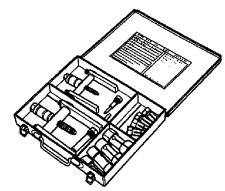
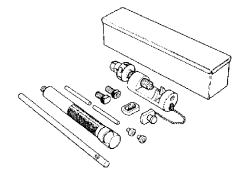
Item		Specification	Remark
Fuel tank		16.0 L (4.2/3.5 US/Imp gal)	E-33
		16.5 L (4.4/3.6 US/Imp gal)	Others
Engine oil	Oil change	3 100 ml (3.3/2.7 US/Imp qt)	
	With filter change	3 300 ml (3.5/2.9 US/Imp qt)	
	Overhaul	4 000 ml (4.2/3.5 US/Imp qt)	
Engine coolant		2.9 L (3.1/2.6 US/Imp qt)	

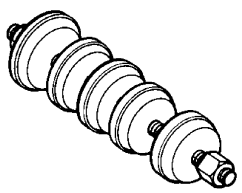
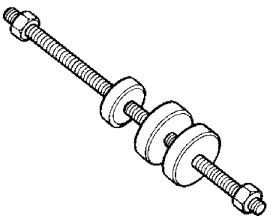
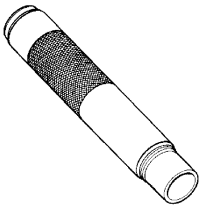
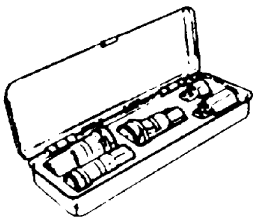
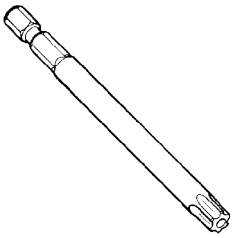
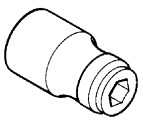
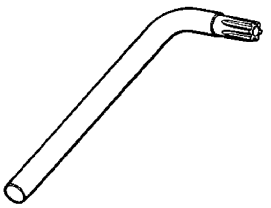
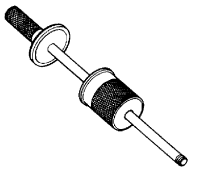
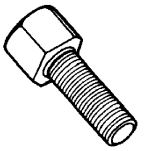
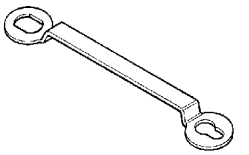
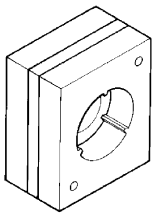
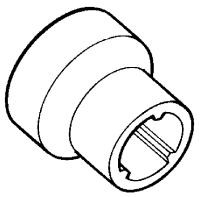
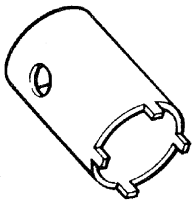
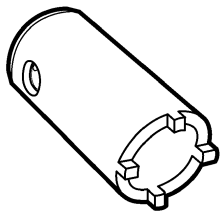
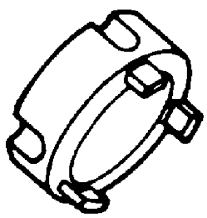
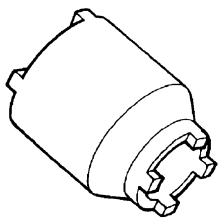
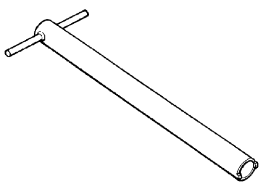
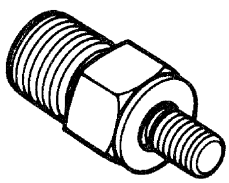
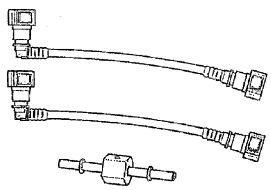
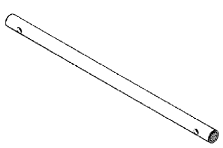
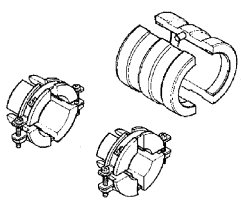
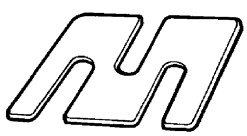
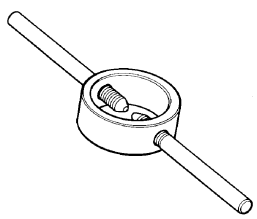
Special Tools and Equipment

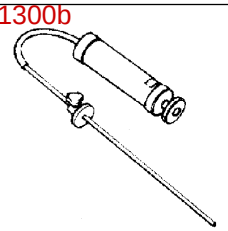
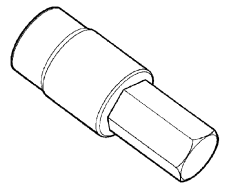
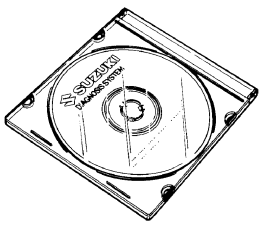
Special Tool

B823H10108002

 **09900–06104** Snap ring pliers	 **09900–06107** Snap ring pliers	 **09900–06108** Snap ring pliers	 **09900–18740** Hexagon socket (24 mm)	 **09900–20102** Vernier calipers (1/20 mm, 200 mm)
 **09900–20202** Micrometer (1/100 mm, 25 – 50 mm)	 **09900–20204** Micrometer (75 – 100 mm)	 **09900–20205** Micrometer (0 – 25 mm)	 **09900–20530** Cylinder gauge set	 **09900–20602** Dial gauge (1/1000 mm, 1 mm)
 **09900–20605** Dial calipers (1/100 mm, 10 – 34 mm)	 **09900–20607** Dial gauge (1/100 mm, 10 mm)	 **09900–20701** Magnetic stand	 **09900–20803** Thickness gauge	 **09900–20805** Tire depth gauge
 **09900–21304** V-block (100 mm)	 **09900–22301** Plastigauge (0.025 – 0.076 mm)	 **09900–22302** Plastigauge (0.051 – 0.152 mm)	 **09900–22403** Small bore gauge (18 – 35 mm)	 **09900–25008** Multi-circuit tester set
 **09900–25009** Needle pointed probe set	 **09900–28630** TPS test wire harness	 **09904–41010** SDS set	 **09910–60611** Universal clamp wrench	 **09913–50121** Oil seal remover

 **09913–70210** Bearing installer set	 **09915–40610** Oil filter wrench	 **09915–63311** Compression gauge attachment	 **09915–64512** Compression gauge	 **09915–74521** Oil pressure gauge hose
 **09915–74540** Oil pressure gauge attachment	 **09915–77331** Meter (for high pressure)	 **09916–10911** Valve lapper set	 **09916–14510** Valve spring compressor	 **09916–14522** Valve spring compressor attachment
 **09916–34542** Reamer handle	 **09916–34570** Valve guide reamer (5.0 mm)	 **09916–34580** Valve guide reamer (10.8 mm)	 **09916–44310** Valve guide remover/ installer	 **09916–53350** Attachment
 **09916–74521** Holder body	 **09916–74550** Band (Piston diam.: 73 – 85 mm)	 **09916–84511** Valve adjuster driver	 **09917–47011** Vacuum pump gauge	 **09919–28620** Sleeve protector
 **09920–34830** Starter clutch holder	 **09920–53740** Clutch sleeve hub holder	 **09921–20240** Bearing remover set	 **09922–22711** Drive chain cutting and joining tool	 **09923–74511** Bearing remover

 **09924–84510** Bearing installer set	 **09924–84521** Bearing installer set	 **09925–18011** Steering bearing installer	 **09930–10121** Spark plug wrench set	 **09930–11920** Torx bit (JT40H)
 **09930–11940** Bit holder	 **09930–11950** Torx wrench	 **09930–30104** Rotor remover slide shaft	 **09930–30450** Rotor remover bolt	 **09930–44530** Rotor holder
 **09930–73130** Starter torque limiter holder	 **09930–73140** Starter torque limiter socket	 **09930–82720** Mode select switch	 **09940–14911** Steering stem nut wrench	 **09940–14940** Swingarm pivot thrust adjuster socket wrench
 **09940–14960** Steering nut wrench socket	 **09940–14990** Engine mounting thrust adjuster socket wrench	 **09940–30221** Front fork assembling tool	 **09940–40211** Fuel pressure gauge adapter	 **09940–40220** Fuel pressure gauge hose attachment
 **09940–52841** Inner rod holder	 **09940–52861** Front fork oil seal installer	 **09940–92720** Spring scale	 **09940–94922** Front fork spring stopper plate	 **09940–94930** Front fork spacer holder

 **09941–34513** Steering race installer	 **09941–54911** Bearing outer race remover	 **09941–74911** Steering bearing installer	 **09943–74111** Fork oil level gauge	 **09944–28320** Hexagon socket (19 mm)
 **99565–01010–012** CD-ROM Ver.12				